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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,124	06/02/2009	Charlotte Skourup	43315-232650	8328

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EXAMINER	
TILLERY, RASHAWN N	
ART UNIT	PAPER NUMBER
2174	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,124	SKOURUP ET AL.	
	Examiner	Art Unit	
	RASHAWN TILLERY	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/30/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to the application filed 6/2/2009.

2. Claims 1-23 are pending in this application. Claims 1, 12 and 23 are independent claims. This action is made Non-Final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dempski (US 2006/0244677) in view of Foxlin (US 2002/0024675).

Regarding claim 1, Dempski discloses a system that enables a user to view a virtual control panel (see paragraph [0013] where it is discussed that selected data associated with a device is displayed on a wearable display).

Dempski does not expressly disclose user interaction with the virtual control panel using a user controlled pointing object. However, Foxlin discloses a head-mounted virtual reality system capable of tracking a hand-mounted object relative to a user's head (see paragraph [0057] and [0058]). It would have been obvious to an artisan at the time of the invention to include Foxlin's teachings in Dempski's user

interface in an effort to enable user to intuitively interact with applications in a virtual environment (see paragraphs [0004] and [0076]).

The modified Dempski discloses a first tracking unit (see Foxlin, fig 1, 30) adapted to capture data representing the position of the pointing object (see Foxlin, fig 1, 14),

a portable identification element (see Foxlin, fig 1, 10),

a second tracking unit adapted to capture data representing the position of the identification element (see Foxlin, fig 1, 30),

a storage unit (see Dempski, fig 1, 36, 38, 40, 42) storing at least one pre-defined graphical interface representing a control panel of a device, said graphical interface comprising an interface for user interactions with the device (see Dempski, paragraph [0012] "The databases may also store data about the work environment, object details, current status and location of workers, etc."),

a graphics unit generating a graphical representation of the control panel based on said stored graphical interface (see Dempski, paragraph [0013] “selecting data from a memory storage with the data being associated with one of the objects associated with one of the visual markers, and then displaying the data on a wearable display worn by the operator.”),

a registering unit registering said graphical representation of the control panel in a fixed relation to said portable identification element, based on said data representing

the position of the identification element, to produce a virtual control panel (see Foxlin, paragraphs [0090], [0091] and [0096]),

a display unit showing the user a view comprising the real world and the virtual control panel projected in a fixed relation to said portable identification element (see Dempski, paragraph [0015] where the see-through display is discussed), and

an application unit performing actions in response to the users interactions with the virtual control panel, and determining which actions to be performed based on the position of said user controlled pointing object in relation to the identification element (see Foxlin, paragraph [0105] where selecting and manipulating objects is discussed).

Regarding claim 2, Foxlin discloses the system is adapted to modify the appearance of the virtual control panel in response to interactions between the user controlled pointing object and the virtual control panel (see paragraph [0105] where selecting and manipulating objects is discussed).

Regarding claim 3, Dempski discloses said graphical interface is adapted to display data from the device and wherein the system is adapted to generate a graphical representation of the data and to display the data on the virtual control panel (see paragraph [0013] “selecting data from a memory storage with the data being associated with one of the objects associated with one of the visual markers, and then displaying the data on a wearable display worn by the operator.”).

Regarding claim 4, Foxlin discloses said user controlled pointing object is a handheld pointing device or a part of the user's body (see paragraphs [0007] and [0008]).

Regarding claim 5, Dempski discloses the storage unit is adapted to store a plurality of graphical interfaces, each representing a control panel of a particular device, wherein the system is adapted to generate and display a plurality of graphical representations of control panels for different devices based on said stored graphical interfaces of the devices (see paragraph [0013] "selecting data from a memory storage with the data being associated with one of the objects associated with one of the visual markers, and then displaying the data on a wearable display worn by the operator."), and wherein the system further comprises: means for identifying which of the stored control panels to be displayed (see paragraph [0016] where the unique identifiers associated with the markers is discussed).

Regarding claim 6, Dempski discloses said means for identifying which of the stored control panels to be displayed comprises a recognition unit for recognizing and identifying devices in the environment of the user, and wherein the system is adapted to determine which of the stored control panels to be displayed based on which of the devices is identified (see paragraph [0016] where the unique identifiers associated with the markers is discussed).

Regarding claim 7, Dempski discloses said recognition unit is adapted to recognize and identify unique identification markings on the devices (see paragraph [0016] where the unique identifiers associated with the markers is discussed).

Regarding claim 8, Dempski discloses the system is arranged so that it changes the virtual control panel displayed when another device is recognized and identified, and when the user has accepted the device (see paragraph [0013] "selecting data from a memory storage with the data being associated with one of the objects associated with one of the visual markers, and then displaying the data on a wearable display worn by the operator.").

Regarding claim 9, Foxlin discloses said portable identification element is adapted to be carried by the user during interaction with the virtual control panel (see paragraph [0058] where the wearable computer, 10 is discussed).

Regarding claim 10, Foxlin discloses said portable identification element is attachable to the body of the user (see paragraph [0058] where the wearable computer, 10 is discussed).

Regarding claim 11, Dempski discloses said display unit comprises a wearable display device showing the user said view (see paragraph [0008] where the wearable see-through display, 12 is discussed).

Claims 12 and 13 are similar in scope to claims 1 and 2, respectively, and are therefore rejected under similar rationale.

Regarding claim 14, Foxlin discloses defining a two-way communication between the virtual control panel and the device, sending information to the device regarding the users actions with the virtual control panel, receiving data from the device, generating a graphical representation of the received data and displaying the data on the virtual control panel (see paragraph [0105] where selecting and manipulating objects is discussed).

Regarding claim 15, Foxlin discloses said data is displayed on the virtual control panel in response to interactions between the user controlled pointing object and the virtual control panel (see paragraph [0057] and [0058] where the hand-mounted beacon 14 is discussed).

Regarding claim 16, Dempski discloses storing a plurality of pre-defined graphical interfaces, each representing a control panel of a particular device, determining which of the stored control panels to be displayed, and generating a graphical representation of the control panel to be displayed based on the pre-defined graphical interface of the control panel to be displayed (see Dempski, paragraph [0012] "The databases may also store data about the work environment, object details, current status and location of workers, etc.").

Regarding claim 17, Dempski discloses at least one of the stored graphical interfaces comprises more than one graphical view to be displayed on the virtual control panel, and which of the views to be displayed is determined based upon the users actions (see paragraph [0022] “The longer that the operator gazes upon the object the

system may optionally be programmed to provide additional information regarding the object.").

Regarding claim 18, Dempski discloses recognizing and identifying a device, determining which of the stored control panels to be displayed based on the identified device, and generating graphical representation of the control panel of the identified device based on the stored graphical interface of the identified device and displaying a view comprising the real world and the virtual control panel of the identified device projected in a fixed relation to said portable identification element (see paragraph [0013] "selecting data from a memory storage with the data being associated with one of the objects associated with one of the visual markers, and then displaying the data on a wearable display worn by the operator.").

Regarding claim 19, Dempski discloses each device is provided with a unique identification marking and a device is recognized by identifying its unique identification marking (see paragraph [0016] where the unique identifiers associated with the markers is discussed).

Regarding claim 20, Dempski discloses the virtual control panel displayed is changed when another device is recognized and identified, and when the user has accepted the device (see paragraph [0013] "selecting data from a memory storage with the data being associated with one of the objects associated with one of the visual markers, and then displaying the data on a wearable display worn by the operator.").

Regarding claim 21, Foxlin discloses said portable identification element is carried by the user during interaction with the virtual control panel (see paragraph [0058] where the wearable computer, 10 is discussed).

Regarding claim 22, Dempski discloses the virtual control panel comprises virtual interaction members and an audio and/or visual feedback is generated when the user activates any of the virtual interaction members (see paragraph [0022] "the system may be responsive to voice command of the operator").

Claim 23 is similar in scope to claim 1 and is therefore rejected under similar rationale.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RASHAWN TILLERY whose telephone number is 571-272-6480. The examiner can normally be reached on M-F 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RASHAWN TILLERY/
Examiner, Art Unit 2174

/DENNIS-DOON CHOW/
Supervisory Patent Examiner, Art Unit 2174